



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

MAY-4 2001

OFFICE OF  
SOLID WASTE AND EMERGENCY  
RESPONSE

**MEMORANDUM**

**SUBJECT:** National Remedy Review Board Recommendations for the Summitville Mine Superfund Site (OU-5)

**FROM:** Bruce K. Means, Chair  
National Remedy Review Board

A handwritten signature in black ink, appearing to read "BK Means", is placed to the right of the "FROM:" line.

**TO:** Max H. Dodson, Assistant Regional Administrator  
Office of Ecosystems Protection and Remediation  
EPA Region 8

**Purpose**

The National Remedy Review Board (NRRB) has completed its review of the proposed Superfund cleanup action (OU-5) for the Summitville Mine in Rio Grande County, Colorado. This memorandum documents the NRRB's advisory recommendations.

**Context for NRRB Review**

The Administrator announced the NRRB as one of the October 1995 Superfund Administrative Reforms to help control response costs and promote consistent and cost-effective decisions. The NRRB furthers these goals by providing a cross-regional, management-level, "real time" review of high cost proposed response actions prior to their being issued for public comment. The board reviews all proposed cleanup actions that exceed its cost-based review criteria.

The NRRB review evaluates the proposed actions for consistency with the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) and relevant Superfund policy and guidance. It focuses on the nature and complexity of the site; health and environmental risks; the range of alternatives that address site risks; the quality and reasonableness of the cost estimates for alternatives; regional, state/tribal, and other stakeholder opinions on the proposed actions, and any other relevant factors.

Generally, the NRRB makes "advisory recommendations" to the appropriate regional decision maker. The region will then include these recommendations in the Administrative Record for the site before it issues the proposed response action for public comment. While the region is expected to give the board's recommendations substantial weight, other important

factors, such as subsequent public comment or technical analyses of response options, may influence the final regional decision. The board expects the regional decision maker to respond in writing to its recommendations within a reasonable period of time, noting in particular how the recommendations influenced the proposed cleanup decision, including any effect on the estimated cost of the action. It is important to remember that the NRRB does not change the Agency's current delegations or alter in any way the public's role in site decisions.

## **Overview of the Proposed Action**

The Summitville Mine Site is located in the San Juan Mountains of south central Colorado, approximately 40 miles west of Alamosa, Colorado, and includes some 580 acres of disturbed area. During the most recent mining period at the site (1984 through 1992), the mineral reserves were developed as a large tonnage, open-pit mining operation. Gold and silver were extracted from the ore in a large, on-site cyanide heap leach operation. The mine operator declared bankruptcy in December 1992 and the EPA assumed control of the site. Releases of acid mine drainage (AMD) from the site have impacted surface water and sediments in the Alamosa River system downstream of the site. The contaminants of concern include copper, iron, and zinc, and the pH is generally less than 4. The NRRB reviewed Operable Unit 5 at the Summitville Site. The preferred remedy includes an impoundment to catch and store contaminated water and a water treatment plant to provide a level of treatment that would be protective and comply with remedial objectives.

## **NRRB Advisory Recommendations**

The NRRB reviewed the informational package for this proposal and discussed related issues with EPA Remedial Project Manager Victor Ketellapper, and Colorado State Project Manager Austin Buckingham on March 20, 2001. Based on this review and discussion the board offers the following comments:

- The board noted that detailed evaluation of alternatives 2, 3, 4, and 5 is difficult without knowing the effectiveness of the OU 4 remedy (Site-Wide Reclamation), which is expected to be completed in 2001. The board was also concerned with the high O&M costs (in perpetuity) for alternatives 3, 4 and 5. The board recommends that the remedy be described in the ROD in more general terms and that details such as the location and size of the impoundment and degree of treatment required be determined during remedial design. The board also recommends that minimizing O&M costs be a major consideration in design, and that the Region continue to consider passive technologies. Overall, it is important to retain sufficient flexibility in the ROD to permit full consideration of data on the effectiveness of earlier OUs as these data become available.
- The package does not clearly explain how remedial action objective (RAO) 1 (re-establish fishery) relates to protection of human health and the environment. The board recommends that the proposed plan either discuss how RAO 1 relates to EPA's mission of protecting health and the environment (as opposed to natural resources restoration), or eliminate RAO 1 and rely instead on RAO 2 (control surface water, groundwater, and leachate to meet ARARs) to determine remediation goals and strategy. If RAO 1 is to remain, the board recommends that the region discuss how achieving RAO 1 in the Alamosa River below the Terrace Reservoir may be affected by the periodic irrigation demands that deplete flows in this part of the river.
- The package is unclear in its description of ARARs. The board recommends that the site decision documents clearly identify which federal and state requirements (e.g.,

water quality criteria) are applicable, which are relevant and appropriate, and which are “to be considered.”

- The package states that the Summitville remedy will occur in two phases: a 10 year Remedial Action period, followed by long term O&M. The NCP (40 CFR 300.435(f)(3)) is cited as a basis for this approach. However, this section of the NCP addresses remedies involving the *restoration* of ground water and surface water to a level that assures protection of public health and the environment. This remedy might also be considered a source control action, under which surface water will not be restored between the treatment plant and the Fern Creek’s confluence with the Alamosa River. Under this definition, long term O&M begins as soon as the remedy is operational and functional. The Region should clarify how the NCP’s O&M provisions apply to this action and provide appropriate rationale in the ROD.
- The board notes that design investigations and data gathering efforts for the preferred alternative could be substantial and that it was unclear whether these costs were considered in the cost estimates. For example, “Design investigations for a new dam foundation” and “ Investigations of the subsurface conditions along the Wightman Fork Diversion” are two of these. Costs for these studies should be included in the appropriate alternative cost estimates to the extent they are known as indicated in OSWER Directive 9355.0-75 (“A Guide to Developing and Documenting Cost Estimates During the Feasibility Study,” July 2000).
- The board notes that sediments in the Alamosa River and the Terrace Reservoir contain elevated metals. During the meeting, the state and region noted that additional data collection and surface water/sediment modeling were underway to evaluate the river and sediments in reservoir. Pending the results of these efforts, the board recommends that the decision documents clearly address in detail what future action, if any, may be taken in regard to these sediments.

The NRRB appreciates the region’s efforts to work closely with the state and community groups at this site. We encourage Region 8 management and staff to work with their regional NRRB representative and the Region 3/8 Accelerated Response Center in the Office of Emergency and Remedial Response to discuss any appropriate follow-up actions.

Thank you for your support and the support of your staff in preparing for this review. Please give me a call at 703-603-8815 should you have any questions.

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